

# Optimization problems in a theory of supercritical fluid extraction of oil

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## Abstract

© 2015, Allerton Press, Inc. In terms of shrinking core model we discuss optimization problems, which occur in supercritical fluid extraction of oil from polydisperse packed bed of ground plant material. We determine the optimal way of packing the particles into the extraction vessel and solve a problem of minimization of extraction time.

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## Keywords

comparison theorem, optimization, polydisperse, shrinking core model, supercritical fluid extraction